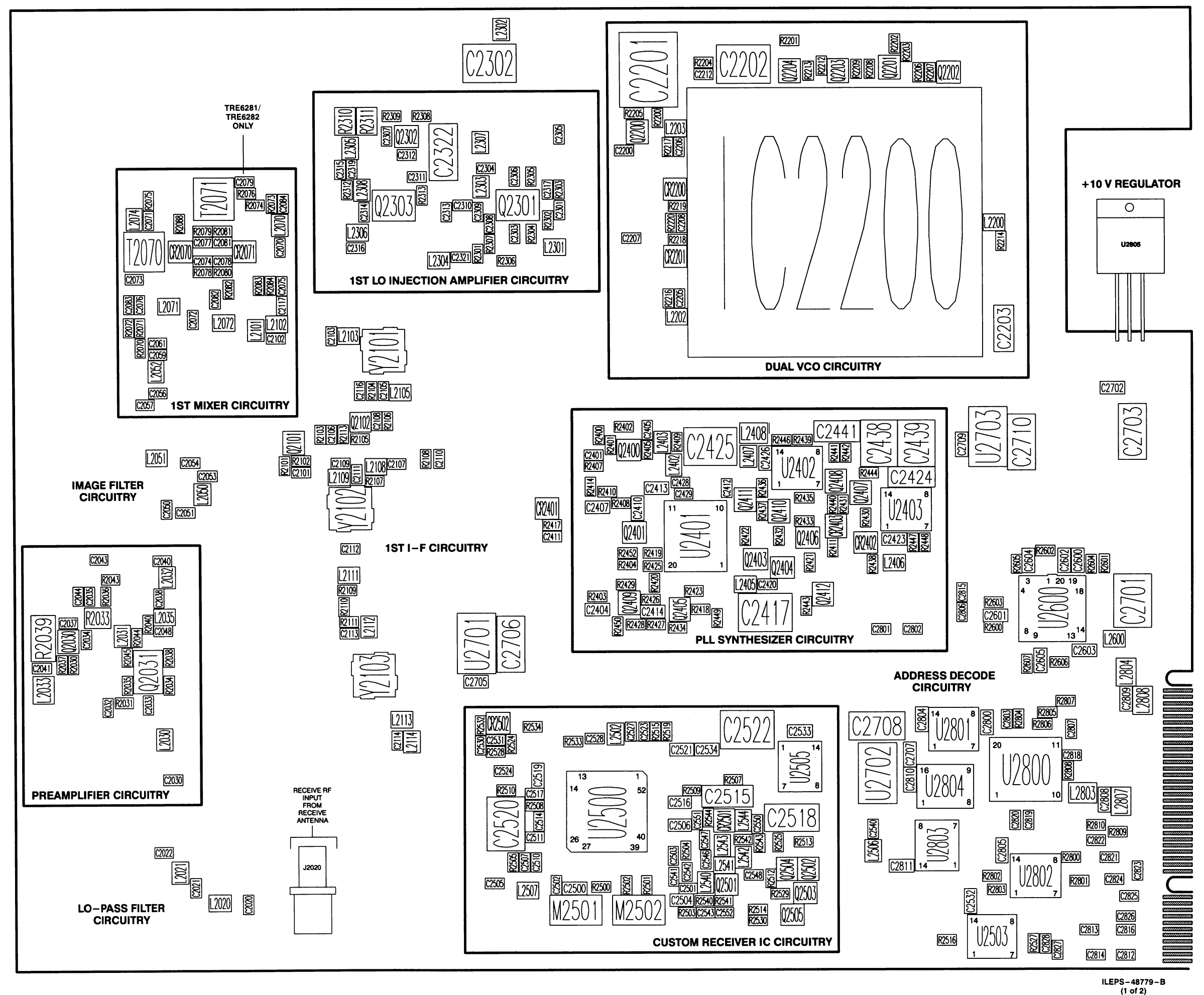


## UHF RECEIVER MODULES

### MODELS TRE6281G–TRE6284G



**BASING DETAILS**

**TRANSISTORS**

E B  
C

**DIODES**

A  
K

**NOTE:**

THE CIRCUIT BOARD EDGE CONNECTOR HAS PRINTED CIRCUIT PLATED CONTACTS ON BOTH SIDES OF THE BOARD. THE COMPONENT SIDE CONTACTS ARE NUMBERED 1, 3, 5, ETC..  
THE SOLDER SIDE CONTACTS ARE NUMBERED 2, 4, 6, ETC.

SEE THE FOLLOWING TABLE FOR EDGE CONNECTOR PIN NUMBERING/SIGNAL NAME CROSS-REFERENCE.

PIN	SIGNAL NAME	PIN	SIGNAL NAME
1	GND	2	GND
3	GND	4	GND
5	EXT_SPARE1	6	EXT_SPARE2
7	EXT_SPARE3	8	EXT_SPARE4
9	EXT_SPARE5	10	EXT_SPARE6
11	EXT_SPARE7	12	EXT_SPARE8
13	EXT_SPARE9	14	EXT_SPARE10
15	EXT_SPARE11	16	EXT_SPARE12
17	RX_WB_AUDIO	18	GND
19	GND	20	GND
21	GND	22	+14.2 V INPUT
23	+14.2 V INPUT	24	+14.2 V INPUT
25	+14.2 V INPUT	26	+14.2 V INPUT
27	+5 V INPUT	28	+5 V INPUT
29	+5 V INPUT	30	+5 V INPUT
31	+5 V INPUT	32	+5 V INPUT
33	+5 V INPUT	34	+5 V INPUT
35	GND	36	GND
37	SPI_MISO	38	SPI_MOSI
39	SPI_CLK	40	RESET
41	HDL_C_DATA	42	HDL_C_BUSY
43	HDL_C_CLK	44	TDM_SYNC
45	TDM_DATA	46	TDM_CLOCK
47	SPARE 1	48	SPARE 2
49	SPARE 3	50	SPARE 4
51	SPARE 5	52	SPARE 6
53	A0_CS1	54	A0_CS2
55	P5	56	A5
57	P4	58	A4
59	P3	60	A3
61	P2	62	A2
63	GND	64	GND
65	RX_2.1_REF	66	N/C
67	GND	68	GND
69	N/C	70	N/C
71	GND	72	GND
73	GND	74	AGC_IN
75	ODC	76	SBI
77	DATA	78	DATA*
79	GND	80	GND

ILEPS-48779-B  
(2 of 2)

UHF RECEIVER MODULES  
MODELS TRE6281G–TRE6284G

parts list

TRE6281G (403–433 MHz)  
TRE6282G (438–470 MHz)  
TRE6283G (470–494 MHz)  
TRE6284G (494–520 MHz) UHF Receiver Modules PL–13069–B

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
		<b>capacitor, fixed:</b>
C2020	2113740G13	2.7 pF, ±0.1 pF, 50V
C2021	2113740A23	6.2 pF, ±0.25 pF, 50V
C2022	2113740G13	2.7 pF, ±0.1 pF, 50V
C2030	2113740A23	6.2 pF, ±0.25 pF, 50V (TRE6281 & TRE6282)
	2113740A24	6.8 pF, ±0.25 pF, 50V (TRE6283 & TRE6284)
C2032	2113740A55	100 pF, ±5%, 50V
C2033	2113740A49	56 pF, ±5%, 50V (TRE6281 & TRE6282)
	2113740A55	100 pF, ±5%, 50V (TRE6283 & TRE6284)
C2034	2113741A45	0.01 uF, ±5%, 50V
C2035	2113740A55	100 pF, ±5%, 50V
C2037	2113741A45	0.01 uF, ±5%, 50V
C2038	2113740A55	100 pF, ±5%, 50V (TRE6281 & TRE6282)
	2113740A49	56 pF, ±5%, 50V (TRE6283 & TRE6284)
C2040	2113740A21	5.6 pF, ±0.25 pF, 50V (TRE6281 & TRE6282)
	2113740G15	3.3 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2041	2113741A45	0.01 uF, ±5%, 50V
C2043	2113740A55	100 pF, ±5%, 50V
C2044	2113741A45	0.01 uF, ±5%, 50V
C2048	2113740A29	10 pF, ±5%, 50V
C2050	2113740G28	9.1 pF, ±0.1 pF, 50V (TRE6281)
	2113740G27	9.0 pF, ±0.1 pF, 50V (TRE6282, TRE6283 & TRE6284)
C2051	2113740G34	16 pF, ±2 pF, 50V (TRE6281)
	2113740G32	13 pF, ±2 pF, 50V (TRE6282)
	2113740G27	8.2 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2053	2113740G35	18 pF, ±2%, 50V (TRE6281)
	2113740G34	16 pF, ±2 pF, 50V (TRE6282, TRE6283 & TRE6284)
C2054	2113740G27	8.2 pF, ±0.1 pF, 50V (TRE6281)
	2113740G24	6.8 pF, ±0.1 pF, 50V (TRE6282)
	2113740G19	4.7 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2056	2113740G11	2.2 pF, ±0.1 pF, 50V
C2057	2113740G35	18 pF, ±2%, 50V (TRE6281)
	2113740G34	16 pF, ±2 pF, 50V (TRE6282, TRE6283 & TRE6284)
C2059	2113740G35	18 pF, ±2%, 50V (TRE6281)
	2113740G32	13 pF, ±2 pF, 50V (TRE6282)
	2113740G28	9.1 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2061	2113740G28	9.1 pF, ±0.1 pF, 50V (TRE6281 & TRE6282)
	2113740G25	7.5 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2070	2113740A21	5.6 pF, ±0.25 pF, 50V (TRE6281)
	2113740G15	3.3 pF, ±0.1 pF, 50V (TRE6282)
	2113740G11	2.2 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2071	2113740A55	100 pF, ±5%, 50V
C2072	2113740A43	39 pF, ±5%, 50V
C2073	2113740G11	2.2 pF, ±0.1 pF, 50V (TRE6281 & TRE6282)
	2113740G15	3.3 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2074	2113741A45	0.01 uF, ±5%, 50V
C2075	2113740G13	2.7 pF, ±0.1 pF, 50V
C2076	2113740A25	7.54 pF, ±0.25 pF, 50V (TRE6281)
	2113740A21	5.6 pF, ±0.25 pF, 50V (TRE6282)
	2113740G11	2.2 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2077,2078	2113741A45	0.01 uF, ±5%, 50V

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C2079	2113740A28	9.1 pF, ±0.25 pF, 50V (TRE6281)
	2113740A21	5.6 pF, ±0.25 pF, 50V (TRE6282)
		Not Used (TRE6283 & TRE6284)
C2081	2113741A45	0.01 uF, ±5%, 50V
C2082	2113740A71	470 pF, ±5%, 50V
C2083	2113740A46	47 pF, ±5%, 50V (TRE6281)
	2113740A37	22 pF, ±5%, 50V (TRE6282)
	2113740A29	10 pF, ±5%, 50V (TRE6283 & TRE6284)
C2084	2113740G03	1 pF, ±0.1 pF, 50V (TRE6281 & TRE6282)
	2113740G15	3.3 pF, ±0.1 pF, 50V (TRE6283 & TRE6284)
C2101	2113741A45	0.01 uF, ±5%, 50V
C2102	2113740A27	8.2 pF, ±0.25 pF, 50V
C2103	2113740A17	3.9 pF, ±0.25 pF, 50V
C2105	2113740A19	4.7 pF, ±0.25 pF, 50V
C2106 thru 2108	2113741A45	0.01 uF, ±5%, 50V
C2109	2113740A27	8.2 pF, ±0.25 pF, 50V
C2110	2113741A45	0.01 uF, ±5%, 50V
C2111	2113740A33	15 pF, ±5%, 50V
C2112	2113740G11	2.2 pF, ±0.1 pF, 50V
C2113	2113740G13	2.7 pF, ±0.1 pF, 50V
C2114	2113740G05	1.2 pF, ±0.1 pF, 50V
C2116	2113740G05	1.2 pF, ±0.1 pF, 50V
C2117	2113740G11	2.2 pF, ±0.1 pF, 50V
C2200	2113741A45	0.01 uF, ±5%, 50V
C2201	2380090M27	330 uF, ±20%, 16V
C2202	2380090M07	47 uF, ±20%, 16V
C2203	0811051A11	0.047 uF, ±5%, 63V
C2205 thru 2208	2113740A55	100 pF, ±5%, 50V
C2212	2113741A45	0.01 uF, ±5%, 50V
C2301	2113740A28	9.1 pF, ±0.25 pF, 50V
C2302	2380090M24	10 uF, ±5%, 50V
C2303,2304	2113740A79	1000 pF, ±5%, 50V
C2305	2113740A55	100 pF, ±5%, 50V
C2306	2113740A79	1000 pF, ±5%, 50V
C2307	2113741A45	0.01 uF, ±5%, 50V
C2308	2113740A55	100 pF, ±5%, 50V
C2309	2113740G07	1.5 pF, ±0.1 pF, 50V
C2310	2113740A19	4.7 pF, ±0.25 pF, 50V
C2311	2113740A55	100 pF, ±5%, 50V
C2312	2113741A45	0.01 uF, ±5%, 50V
C2313	2113740A29	10 pF, ±5%, 50V
C2314	2113740A55	100 pF, ±5%, 50V
C2315	2113740A79	1000 pF, ±5%, 50V
C2316	2113740A17	3.9 pF, ±0.25 pF, 50V
C2317	2113740A24	6.8 pF, ±0.25 pF, 50V
C2319	2113741A61	0.047 uF, ±5%, 50V
C2321	2113740A19	4.7 pF, ±0.25 pF, 50V
C2322	2311049A45	10 uF, ±10%, 35V
C2401	2113740G03	1 pF, ±0.1 pF, 50V
C2404	2113741B69	0.1 uF, ±5%, 50 V
C2405	2113740A55	100 pF, ±5%, 50V
C2407	2113741B69	0.1 uF, ±5%, 50 V
C2410	2113741B69	0.1 uF, ±5%, 50 V
C2411	2113741A45	0.01 uF, ±5%, 50V
C2412	2113740A55	100 pF, ±5%, 50V
C2413,2414	2113741B69	0.1 uF, ±5%, 50V
C2417	2380090M24	10 uF, ±20%, 50V
C2420	2113740A55	100 pF, ±5%, 50V
C2423	2113741B69	0.1 uF, ±5%, 50 V
C2424	0811051A09	0.022 uF, ±5%, 63 V
C2425	2380090M24	10 uF, ±20%, 50V
C2426	2113741B69	0.1 uF, ±5%, 50 V
C2428	2113740A21	5.6 pF, ±0.25 pF, 50V
C2429	2113740A55	100 pF, ±5%, 50V
C2438,2439	0811051A19	1 uF, +5%–0.5%, 63V
C2441	0811051A15	0.22 uF, ±5%, 63 V
C2500	2113741B69	0.1 uF, ±5%, 50 V
C2501	2113740A21	5.6 pF, ±0.25 pF, 50V

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C2502,2503	2113741A45	0.01 uF, ±5%, 50V
C2504	2113741B69	0.1 uF, ±5%, 50 V
C2505	2113741A45	0.01 uF, ±5%, 50V
C2506	2113741B69	0.1 uF, ±5%, 50 V
C2507	2113741A45	0.01 uF, ±5%, 50V
C2510,2511	2113741A45	0.01 uF, ±5%, 50V
C2514	2113741A61	0.047 uF, ±5%, 50V
C2515	2311049A10	2.2 uF, ±10%, 35V
C2516	2113741B69	0.1 uF, ±5%, 50 V
C2517	2113741A57	0.033 uF, ±5%, 50V
C2518	2311049A21	22 uF, ±10%, 20 V
C2519	2113741B69	0.1 uF, ±5%, 50 V
C2520	2380090M24	10 uF, ±20%, 50V
C2521	2113741B69	0.1 uF, ±5%, 50 V
C2522	2380090M24	10 uF, ±20%, 50V
C2523,2524	2113741A45	0.01 uF, ±5%, 50V
C2527	2113741A45	0.01 uF, ±5%, 50V
C2528	2113740A71	470 pF, ±5%, 50V
C2530	2113741A53	0.022 uF, ±5%, 50V
C2531	2113740A55	100 pF, ±5%, 50V
C2532 thru 2534	2113741B69	0.1 uF, ±5%, 50 V
C2540	2113741A45	0.01 uF, ±5%, 50V
C2547,2548	2113740A35	18 pF, ±5%, 50 V
C2551	2113740G11	2.2 pF, ±0.1 pF, 50V
C2542, C2543	2113740A24	68.8uF, ±5%, 50 V
C2546	2113740A39	27 pF, ±5%, 50V
C2547	2113740A42	36 pF, ±5%, 50V
C2548, C2550	2113740A79	1000 pF, ±5%, 50V
C2552	2113740A39	27 pF, ±5%, 50V
C2600 thru 2605	2113741B69	0.1 uF, ±5%, 50 V
C2701	2380090M24	10 uF, ±20%, 50V
C2702	2113741B69	0.1 uF, ±5%, 50 V
C2703	2311049A21	22 uF, ±10%, 20 V
C2705	2113741B69	0.1 uF, ±5%, 50 V
C2706	2311049A21	22 uF, ±10%, 20 V
C2707	2113741B69	0.1 uF, ±5%, 50V
C2708	2311049A21	22 uF, ±10%, 20 V
C2709	2113741B69	0.1 uF, ±5%, 50 V
C2710	2311049A21	22 uF, ±10%, 20 V
C2800	2113741B69	0.1 uF, ±5%, 50V
C2801 thru 2803	2113740A55	100 pF, ±5%, 50V
C2804,2805	2113741B69	0.1 uF, ±5%, 50 V
C2806,2807	2113740A33	15 pF, ±5%, 50V
C2808 thru 2811	2113741B69	0.1 uF, ±5%, 50V
C2812 thru 2815	2113740A33	15 pF, ±5%, 50V
C2816	2113740A55	100 pF, ±5%, 50V
C2818 thru 2820	2113740A33	15 pF, ±5%, 50V
C2821 thru 2826	2113740A55	100 pF, ±5%, 50V
C2827,2828	2113740A33	15 pF, ±5%, 50V
diode (see note):		
CR2070,2071	4882290T04	Diode; hot carrier
CR2200,2201	4813825A06	Pin,35V
CR2401	4813825A05	Hot Carrier
CR2402,2403	4813833C10	0.1A, 70V
CR2501,2502	4813825A01	3V, dual
hybrid (see note):		
IC2200	0180733E59	VCO RCVR UHF R1 (TRE6281)
	0180733E60	VCO RCVR UHF R2 (TRE6282)
	0180733E61	VCO RCVR UHF R3 (TRE6283)
	0180733E62	VCO RCVR UHF R4 (TRE6284)
connector:		
J2020	0984393T01	receptacle: uhf
coil:		
L2020,2021	2462587N44	18 nH, ±5%
L2030	2462587R17	IND CHIP 8.2NH 5% (TRE6281 & TRE6282)
	2462587R16	4.7 nH, ±5% (TRE6283 & TRE6284)
L2031	2462587N50	CHIP IND 56 NH 5%

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
L2032	2462587N42	CHIP IND 12 NH 5% (TRE6281 & TRE6282)
	2462587R17	IND CHIP 8.2NH 5% (TRE6283 & TRE6284)
L2033	2411087A36	COIL,CHIP 6.8 UH 10 A/P
L2035	2462587R17	IND CHIP 8.2NH 5%
L2050 thru 2052	2462587N44	18 nH, ±5%
L2070	2462587R16	4.7 nH, ±5%
L2071,2072	2462587N51	68 nH, ±5%
L2074	2462587N49	47 nH, ±5%
L2101	2462587N55	150 nH, ±5%
L2102	2462587N59	330 nH, ±5%
L2103	2462587N68	1000 nH, 5%
L2105	2462587N68	1000 nH, 5%
L2108	2462587N71	1800 nH, ±5%
L2109	2462587N64	680 nH, ±5%
L2111,2112	2462587N68	1000 nH, 5%
L2113	2462587N59	330 nH, ±5%
L2114	2462587N68	1000 nH, 5%
L2108	2462587N57	220 nH, ±5%
L2202,2203	2462587N57	220 nH, ±5%
L2301	2462587R17	IND CHIP 8.2NH 5%
L2302	2462587N57	220 nH, ±5%
L2303	2462587R17	IND CHIP 8.2NH 5%
L2304	2462587N44	18 nH, ±5%
L2305	2462587N68	1000 nH, 5%
L2306	2462587N44	18 nH, ±5%
L2307	2462587N68	1000 nH, 5%
L2308	2462587N57	220 nH, ±5%
L2402	2462587N43	15 nH, ±5%
L2403	2462587N57	220 nH, ±5%
L2405 thru 2407	2462587N57	220 nH, ±5%
L2408	2411087A54	220 uH, ±10%
L2502	2462587N71	1800 nH, ±5%
L2506,2507	2462587N57	220 nH, ±5%
L2540	2413923A17	220 nH, ±5%
L2541, L2542	2462587N72	2200 nH, ±5%
L2543	2413923A05	120 nH, 2%
L2544	2413923A07	180 nH, 2%
L2600	2462587N71	1800 nH, ±5%
L2803,2804	2484657R01	ferrite bead
L2807,2808	2484657R01	ferrite bead
Q2030	4813824A17	PNP
Q2031	4813827A24	TSTR NPN SML SIG MRF5812 5812
Q2032	4813824A10	NPN
Q2102	4885228U01	TSTR GAAS DL GATE MESFET_U74_
Q2200,2201	4813824A10	PNP
Q2202	4813824A17	PNP
Q2204	4813824A17	PNP
Q2301	4813827A26	PNP
Q2302	4813824A17	PNP
Q2303	4813827A26	PNP
Q2309	4813827A03	PNP
R2310,2311	4813824A10	NPN
R2312	4813824A10	NPN
R2313	4813824A10	NPN
R2405	4813824A17	PNP
R2406,2407	4813824A10	NPN
R2408	4813824A17	PNP
R2409,2410	4813824A10	NPN
R2411	4813824A17	PNP
R2412	4813824A10	NPN
R2405	4813824A17	PNP
R2407	4813824A10	NPN
R2408	4813827A03	PNP
R2409	4813824A10	NPN
R2410	4813824A10	NPN
R2411	0611079A82	5600 ohms, ±5%, 1/10W
R2031	0611079A74	1K, ±5%, 1/10W
R2033	0611072A09	22 ohms, ±5%, 1/4 W
R2034	0611079A01	O ohms, ±5%, 1/10W

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
R2036	0611079A90	4700 ohms, ±5%, 1/10W
R2037	0611079A84	2700 ohms,

UHF RECEIVER MODULES  
MODELS TRE6281G–TRE6284G

